USCMS Engineer Status Report for September 2004

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1 Work Performed This Month

The effort that took up the great bulk of my time was my work with Marc Paterno, Walter Brown, and Fermilab physicists Avi Yagil and Liz Sexton-Kennedy (and some others) on proposed improvements to the CMS software architecture.

First, we decided that short term patches like COBRA from the ROOT prompt are not the way to go. Rather, the CDF (and D0) experts among us (not me) wrote up the features of the CDF (D0) architecture that were desirable. My main task was (and is) to identify how CMS meets or does not meet these specificatins. The main goal of this is to have this well documented by Vincenzo's two week trip to Fermilab in November, in which we plan to get this rolling. This effort has been referred to by david Stickland as "The revision of the COBRA?ORCA Event Model".

Prior to my work on this, I spent a lot of effort studying the dependencies between CMS shared libraries. For example, simply to print out the results of the track finder algorithm requires the loading of 130 shared libraries, 50 COBRA, 34 ORCA, and 46 external.

In other work in September, I found and fixed one bug in POOL. I found and diagnosed two separate bugs in COBRA well enough so that Lassi and Vincenzo could easily fix them. I also found and fixed a bug in ORCA. The COBRA and ORCA bugs were seriously impacting users.